

Online Restaurant Table Booking System

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Abstract—In the world of technology, we can effortlessly get data about restaurant services with help of mobile internet. So here we develop a system for the online restaurant table booking system. In our system, there are four interfaces. In the first system user login into the Mobile application and search the restaurant according to the user location. Different hotels information are shown to the user with the live status of the restaurant table. The user can book the table from the application, pre-order the food stuff and make the payment through application.in the second system the hotel manager is provided an interface through which they manage the order of the customer and also update the dynamic menu of the restaurant. In the third system, the customer order details are shown on the kitchen display desktop and cookery staff serves the order when the order is cooked. In the fourth system, every table of the restaurant has a tablet which works as a digital menu card. The user can directly order the food from tablet available on the table and make the payment.

Keywords-Interface, Dynamic menu, Live status, Online payment, Kitchen Display, Manager PC, TCP/IP protocol, Review system.

I. INTRODUCTION

We visit restaurant regularly for having good food stuff. Besides good food, service is also an important factor which attracts customers. Generally, we have to wait in a queue outside the restaurant for table availability and it leads to time wasting. We don't know which food stuff is good for a particular restaurant and become a tough job to decide the food stuff for having. And there is no review system for particular foodstuff which we having. We feel irritated when hotel service is not good due to lack of technology and communication. Sometimes we are in hurry for having food and it became a tough choice for finding nearby good service restaurant. So we make a system which eliminates above-defined problems.Our system name is Online Restaurant Table Booking System (ORTBS).).In definition, ORTBS is a system, developed for the restaurant as well as for user for ordering the food by the user themselves and this leads to decrease the total time for serving the food. This project is for

digital ordering system and lives status of the table. This research includes system features, implementation, and future scope of the system. The scope of our system defines the features of the system. Design includes the implementation of the system. System architecture consist the architecture diagram of our proposed system.

A. Use of this system

- 1) Provide dynamic menu
- 2) Live status of table
- 3) Order the food from tablet or mobile
- 4) Payment through application



Fig. 1. Structure of System

II. EXISTING SYSTEM

In the existing system, everything is based on paper and there is no computerized based system for keeping the records. The menu which is available on the restaurant table is paper based, the order which is taken by the waiter is paper based and the bill generated at last is also paper based. We know that paper can easily get damaged due to some reasons and it leads to problem i.e. waiter don't have order records of the customer. Due to this problem manager gets a problem during the billing of the customer. This also leads to wastage of time, money, and paper. If we want small changes in the menu then manager have to print the whole menu card and it leads to money wastage. Since it is not possible to print the whole menu again and again due to small changes. If the manager wants to audit the records of order then also it is not an efficient way of searching the records. The customer has to wait for the waiter for taking their order and this process is time-consuming. And for every small order, we have to call the waiter number of times and it leads to some misunderstanding from the side of the waiter. So we have to make changes in the existing system to eliminate the above problem. One waiter is assigned to every table and waiter take order from only that particular table. After taking the order they enter the user order on the desktop for maintaining the records. After that when the order is cooked, the waiter served the dishes on the table and keep the status of the table. After having the food, waiter generates the bill and gives the bill to the user. Some of the existing system related are:-

B. LRS Restaurant Server Pager Starter kit:It improves the service of the customer and reduces the time waiting for the customer. This software uses UHF frequency for sending the data.

C. Pixel Point Software:Pixel Point is a company which provided software for managing the restaurant. It consists software as well as hardware for maintaining the restaurant. It uses TCP/IP protocol for communication.

III. PROJECT SCOPE

In the current dining environment physical menu are used to convey the food list. Menus are paper based so it imposes restriction on the content of the menu card and to update the menu card according to the restaurant availability is a tough job. This document describes the requirements of the digital menu cards and its advantage over the formal dining environment. Four related system interface encompassed by the general scope of the restaurant menu and ordering system. The first system interface related to the problem of the waiting time outside the restaurant, which can be solved with the help of the application, this shows the live status of the restaurant table. The second interface is related to the replacement of the current menu with the digital menu cards. The system interface is related to the digital system for the hotel manager to upload the hotel information dynamically. The fourth interface is for the transferring of customer order automatically to the kitchen, which is displayed on the screen.

IV. SYSTEM FEATURES

D. The Mobile Application

- There will be an app for the user.
- This will allow the user to browse hotel near them.
- This will show the live status of the near restaurant table.
- The customer can pre-book the table and placed the order.
- This will also allow the user to view the review of the different restaurant and its food.

E. Customer Review

- The customer can make the review the food they have.
- The customer can enter the review about the hotel ambiance and service.
- This will help the hotel owner to improve the same and make necessary changes if required.

F. Tablet on Restaurant Table

- Tablet is present on each table.
- This will allow the user to access the menu card of the restaurant.
- This will help the customer to view the review of the food.
- This will help the customer to view the description about the content of the food.
- This will help the customer to make the payment through the tablet.

G. Modifiable Restaurant Menu

- The hotel manager can modify the menu according to the availability.
- The new menu also can be added to the menu card.

H. Time of Waiting

- The live status helps the customer to get approx. time for the availability of the table.
- The tablet on the table shows the approx. time to serve a food.

I. Handling and storing items

- The generation of the customer bill is done dynamically.
- The bill is automatically stored for the further references.

J. Attractive offer

- The application shows different offers that are available.
- It will also show special offer for the customer who will visit the application frequently.

V. SYSTEM ARCHITECTURE

When the user logged into the application, on the basis of the user current map location different restaurant option are shown to the user. The list is shared according to the rating of the hotels. The user can log into the one restaurant and check the availability of the table, as per the user requirements user will select the table and then confirm the seat. The confirmation message sent to the user. A notification will also send to the restaurant manager about the table booking and customer data. The user can also pre-order the food. They can select the food and make the order. After the confirmation of the food order, the system asked for the payment. Then user makes the payment and confirmation notification is sent to the user as well as the manager. If the user visits the restaurant then there is one tablet on each table which contains the menu. The user selects the different food and proceeds it. An order confirmation message will appear which shows the customer order, after clicking on the confirm button, the order is placed.

The notification is sent to the hotel manager and the order is displayed on the kitchen screen. After the user has completed the food the bill is automatically generated by clicking on the make payment button. The user can make the payment and get the digital bill as email or message.

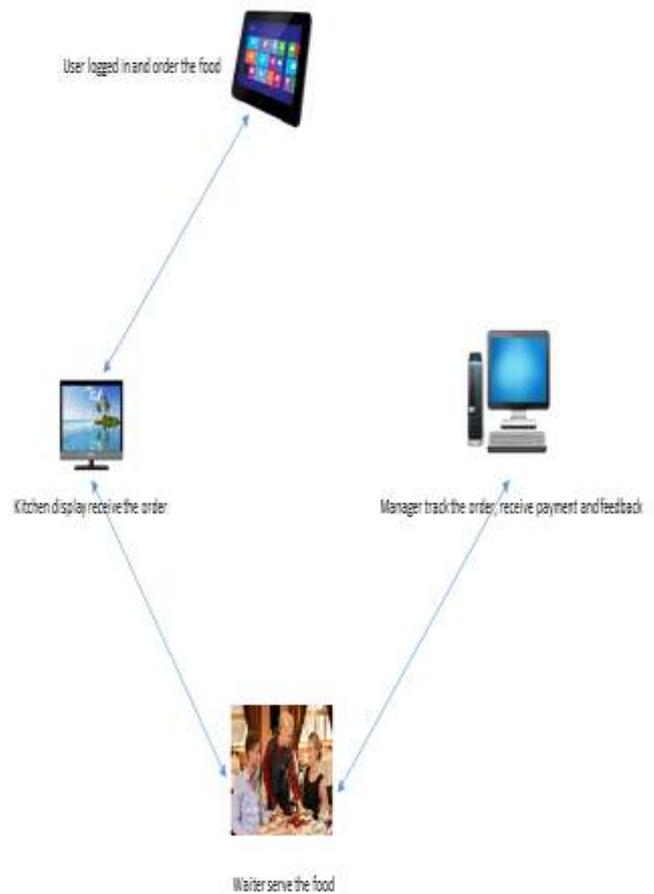


Fig. 2. System Flow

VI. TECHNICAL DETAILS

Different technologies which are used to implement the system are:-

- Android version above 4.1 for the application is required.
- Java SE8 programming language is used for the web application.
- Eclipse is used as an Integrated Development (IDE) for coding.
- JSP and Servlet are used for the web application and for the remote database access.
- MySQL is used for the storing of data.

VII. PROPOSED SYSTEM ARCHITECTURE

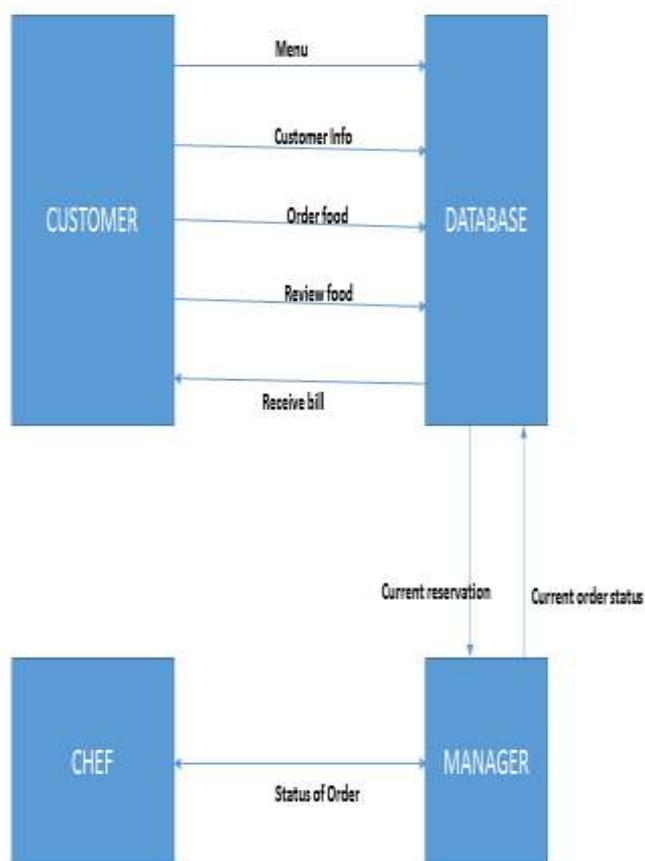


Fig. 3. System Architecture

VIII. BENEFITS OF PROPOSED SYSTEM

- It makes the services of the restaurant efficient.
- Minimize the wastage of paper.
- Now we can pre-order the food stuff before reaching the restaurant and it saves the lot of time.
- We can now review the foodstuff which we have.
- We can also see the review of the foodstuff available in the particular restaurant.
- We can make online payment through the application.

IX. CONCLUSION

The projected system make the service such as ordering the food and payment of the restaurant efficient and would invite the customer. It provide the dynamic menu. This proposed system eliminates the paper working.

X. FUTURE SCOPE

- The live availability system can be implemented in the hotel parking which shows the map of the hotel parking with available space.

- The restaurant stores information can make digitalize which show the current availability of the different items in the store.
- Online food order system can also be implemented.

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